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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,742	03/17/2004	Richard Brown	18189K-013110US	6902

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EXAMINER	
ALIMENTI, SUSAN C	
ART UNIT	**PAPER NUMBER**
3644	

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,742	BROWN ET AL.	
	Examiner	Art Unit	
	Susan C. Alimenti	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-31* is/are pending in the application.

4a) Of the above claim(s) *26-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-25, 29-31* is/are rejected.

7)☒ Claim(s) *11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

EA

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in the reply filed on 29 August 2005 is acknowledged.

2. Claims 26-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 29 August 2005.

Claim Objections

3. Claim 11 is objected to because of the following informalities: It appears that in the phrase, "while the filed are in," the word "are" should be changed to --is--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 11-14, 16, 20, 25, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone.

Regarding claims 11-14, 16, 20, 29 and 30, and the above discussion, Stone discloses the claimed invention except he does not positively disclose that the ground cover be laid out the day

before harvest. Stone does ~~not~~ note that ground cover 23 is used to protect a crop against frost damage (Stone, col.1, lns.8-10), this implies that said ground cover is laid on a crop the night before the anticipation of frost. It is noted that in many cases frost comes the day before an intended harvest and ground cover must be put down that night or else the crop would be damaged and would no longer be good for market sale. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place Stone's ground cloth on a crop the night prior to harvest in order to prevent frost damage that could result from that night's weather.

Regarding the limitation added to claim 11 in the amendment submitted 09 February 2005, stating "while the field... condition," it is well known that crop cover is used to prevent frost damage. As stated above, farmers will lay the crop cover in response to a weather forecast that there is a chance of frost forming that night. During the fall harvest season, frost will begin to occur during the week of harvesting a field. When to crop cover is laid on a crop that is intended to be harvested and frost appears the morning of harvest the field will inherently be in a frozen condition as it is being harvested, e.g. the frosted crop cover is pulled back as a crop of lettuce is cut.

Regarding claim 12, Stone does not specify the type of crops however, the Examiner takes Official Notice that it is well known in the agricultural arts that crop cover is used for all plants in the group consisting of lettuce, spinach, cabbage, baby leaves, baby lettuce and baby spinach, since said crops are known to generally be grown in the spring and fall seasons when plants are most susceptible to frost damage.

Regarding claim 25, Stone discloses that the ground cover is also used as a shield or heat screen, but does not indicate that this shielding of light and thus heat is done to stunt plant growth (Stone, col.1, lns.13-14). It is implicit that when light is filtered through a screen and a limited amount of light and heat is permitted to reach growing plants, plant growth will be directly affected. Shading is used for two main reasons; in many areas where intense amounts of light or heat are not conducive to the growth of non-native plants, because the plants will either (1) perish, or (2) grow too fast. The result will be a lanky undesirable plant or vegetable plant with poor fruit growth. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Stone's ground cover to shade plants from heat to stunt growth since it is known in the art that several plants do not grow correctly in their non-native habitat because of too much light or heat.

6. Claims 15, 18-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone, as applied to the above claims, and further in view of Maginnes et al. (US 4,073,089).

Stone discloses the claimed invention except it is not positively stated that heated air is passed between and under the two layers. Maginnes et al. (hereinafter Maginnes) discloses a method in the same field of invention, i.e. controlling plant growth environments, that supplies CO_2 rich heated air to plants in a controlled environment. Similarly to Stone's system, Maginnes' method comprises two layers of agricultural film, a top layer 4 and an inner permeable layer 5. The CO_2 rich heated air (Maginnes, col.2, lns.31-34) is fed between the layers and then passes through inner layer 5 so that it passes underneath the cover into the space occupied by the plants. This is done so that the heat and CO_2 directly reaches the plants promoting strong plant growth. It would have been obvious to one having ordinary skill in the

art at the time the invention was made to modify Stone's structure by using a permeable material for the inner layer and passing heated air into the system to promote plant growth.

7. Claims 17, 22-24, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone as applied to claim 11 above, and further in view of Laverde (Battenfeld Glouster Engineering Inc.).

Regarding 22, Stone discloses the claimed invention except the presence of pesticides is not mentioned. It is well known that large crop farmers and even many gardeners regularly spray crops to prevent against bacteria, fungus, weed and pest damage, so it is considered obvious that a crop with or without ground cover placed over it would contain pesticides thereon, in order to achieve a successful yield. Further, Laverde discloses an agricultural film that also contains a fumigant therein, with a thickness of 4-10 mils, ready for placement upon a crop (Laverde, pg. 4, sect. 4.0). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide pesticide under the cover.

Regarding claims 17, 23 and 31, Stone discloses the present invention except he does not positively disclose the thickness of the sheets of ground cover. Laverde, as stated above, disclose a cover film for various agricultural applications, one of which being ground cover (Laverde, figure on pg. 2). Laverde teaches the typical thickness of these films to be with in the range of 4-8 mils (Laverde, pg.2, sect. 1.1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Stone's ground cover at a thickness between 4-8 mils. in order to achieve weight specifications and transparency properties that are know to be favorable in the art.

Regarding claim 24, Stone discloses the claimed invention except the dimensions and area of removal is not stated. It is well known that ground cover is available is a numerous variety of sizes, as shown by Laverde, in order to meet the needs of a diverse market from small gardeners to large crop farmers. Furthermore, the Examiner takes Official Notice that the removal of ground cover from a field being harvested can be accomplished by using a wide range of increments that depend upon how much of the field is harvested per day, and how many workers are picking at a time. It would have be been obvious to one having ordinary skill in the art at the time the invention was made to make Stone's ground cover sheet in larger dimensions and to remove it in twenty feet increments since the removal of the ground cover at harvest depends upon how much of the field is decided to be harvested each day.

Response to Arguments

8. Applicant's arguments filed09 February 2005 have been fully considered but they are not persuasive. The crux of applicant's arguments is that Stone teaches away from the method of placing the frost cover over a field/crop the day before harvesting, because Stone discusses the principles of light transmission through the cover, and therefore means to leave the cover on a crop for an extended period of time. The examiner respectfully disagrees.

While it is noted that Stone does discuss the properties of light filtration and plant growth under the cover, this is surely not intended to limit the use of the cover. Stone further contemplates using the cover in hot weather "as a cooling insulator for greenhouses, cold frames and the like," and in cold weather "to be placed over greenhouses, cold frames, or ground

surfaces. . . to form cloches or the like to prevent frost damage." Stone, col.1, lns.54-59. Clearly, Stone envisioned many uses for his dual layer agricultural cover.

Further, the examiner noted it would be obvious to use the cover in such a manner as claimed in the present invention, since it is a well-known method practiced by late harvest farmers across the country. The fact that a cover allows light to pass through to the plants it is covering has no effect on its ability to prevent frost from forming on the plants. The examiner also notes that various types of crop cover are employed to carry out a range of methods that support the efficient growing of plants. To suggest that because a crop cover is capable of transmitting light, it is not meant for short-term frost prevention goes too far to improperly limit Stone's invention.

In conclusion, for these and the reasons listed in the above rejection, the examiner maintains the rejection of claims 11-25 and 29-31.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan C. Alimenti whose telephone number is 571-272-6897. The examiner can normally be reached on Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan C. Alimenti

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